## PROCEEDINGS

## BIOLOGICAL SOCIETY OF WASHINGTON

## A NEW SUBSPECIES OF THE LIZARD GENUS SCELOPORUS FROM TEXAS. ${ }^{1}$

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Sceloporus merriami, which has long been considered a stable and rather well differentiated species of the genus, appears to consist of two subspecies differing from each other in scutellation, color and size. The typical subspecies seems to be restricted ecologically to canyons; its geographical range is along the Rio Grande from southeastern Val Verde county, Texas, to western Brewster county, northward in Terrell and Val Verde counties. The subspecies described below occurs in the mountains of southern and central Brewster county, and in Coahuila.

Two hundred and fifty-four specimens of merriami have been examined in this study; ${ }^{2}$ further data have been taken from Stejneger (Proc. Biol. Soc. Wash., 17, 1904, pp. 17-20) and Wright and Wright (Proc. Biol. Soc. Wash., 40, 1927, pp. 57-64, pls. 1-3).

Sceloporus merriami annulatus, subsp. n.
Holotype.-EHT ${ }^{3}$ A787, collected on east slope of Chisos Mts., Brewster county, Texas, August, 1931, by Dr. Edward H. Taylor and Jack Wright. Paratypes. UMMZ ${ }^{4}$ 66177-9, 66180(2), 66181(2), 66182, 66183(3), 66184(2), 66185(2), 66186(2), 66187(2), 66188(2), 66189(4), 66190(7), 66191, 72077, Glenn Spring, Brewster Co.; UMMZ 66192(2), 66193(2), 66194, two miles north of Glenn Spring; UMMZ 66208(2), 66209(2), 66215-7, 66219-24, 66227, 66234-5, Glenn Draw, Chisos Mts., Brewster Co.; UMMZ 66195-66200, 66201(2), 66202(2), 66203, 66204(2), 66205(2), 66206(2), 66228-30, Juniper Cañon, Chisos Mts.; UMMZ 66207, Boot

[^0]Spring Basin, Chisos Mts.; UMMZ 69857, north side of Emory Peak, Chisos Mts.; UMMZ 66210-4, 66225-6, 66231-3, 69856(6), Chilicotal Mts., Brewster Co.; KU ${ }^{5}$ 15058-61, 15063, 15066-7, topotypes; Mus. Comp. Zool. 28086, Rocky Canyon, Glenn Draw, Brewster Co.; MCZ 31770-3, Glenn Spring.

Diagnosis.-A small species of the genus Sceloporus, maximum snoutvent measurement about 51 mm .; head scales slightly rugose; frontoparietals usually divided into two or three scales on each side, rarely separated medially; anterior section of frontal usually longitudinally divided; prefrontals rarely in contact medially; outer row of labiomentals rarely terminated anteriorly with the first scale wedged between first postmental and first infralabial; dorsal scales 47 to 62 from occiput to base of tail, average 53.3 ; scales around body 85 to 101, average 91.7 ; femoral pores 19 to 28 , average 23.8 ; lamellae on free part of fourth toe 20 to 27 , average 23.5; scales between series of femoral pores one to five, average 2.73; lateral scales on body and scales on posterior surface of thigh granular; no postfemoral dermal pocket. Adult males with the dark blue median borders of lateral abdominal marks confluent, covering the middle of the abdomen and extending over most of ventral surface of thighs; broad, dark blue convergent bands on throat; blue tail bands confluent on ventral surface of tail, or nearly so, in both males and females.

Description of holotype.-Head scales very slightly rugose, pitted; interparietal about one-half size of supraorbital area; parietal small, its posterior part broken into small scales indistinguishable from temporal scales; frontoparietals divided on one side, entire on other, in contact medially; posterior section of frontal entire; anterior section of frontal divided longitudinally, about one third larger than posterior section; supraoculars four-five, separated from median head scales by a single row of small scales, and from superciliaries by one complete and another incomplete row of scales; superciliaries five-five; prefrontals separated medially by an azygous scale; frontonasals normal, subequal in size, the lateral scales in contact with second canthal; two pairs of internasals, the posterior pair in contact with frontonasals and separated from first canthal by a single scale on each side; nasal extending downward, the nostril pierced near its upper border; four square scales behind rostral between nasals; subnasal present; two canthals on each side, the first in contact with lorilabials; a single loreal on each side; preocular divided, upper section keeled; subocular narrow, keeled; two small, strongly keeled postoculars; subocular separated from supralabials by a single row of lorilabials; a second incomplete row of lorilabials present on sides of head; supralabials four, infralabials five to a point below middle of eye.

Mental pentagonal, with a labial border about two-thirds that of rostral; seven-eight postmentals, the first scale of one series in contact with its fellow medially; other postmentals separated; outer row of labiomentals terminating anteriorly below posterior part of second infralabial; suture between first and second infralabials placed at about the middle of the lateral edge of first postmental; gular scales smooth, rounded, the anterior

[^1]scales, between postmentals, largest; posterolateral gular scales (below ear) much smaller than median gular scales.

Auricular lobules five, elongate, smooth, pointed, larger than preceding scales, the longest less than half the greatest length (in body axis) of tympanum; temporal scales keeled, not mucronate, median scales smaller than others; scales between ear and arm granular, about size of scales on sides of body, larger than scales in and above axilla; lateral nuchal pocket present; a small group of enlarged scales above nuchal pocket, near dorsal scales; a rudimentary gular fold, present only in front of arm.

Dorsal scales keeled, not mucronate, not strongly imbricate (most of them separated from each other by narrow areas of extremely minute scales), in rather irregular rows, 56 from occiput to base of tail; nine dorsal scales to head length; lateral scales granular, merging gradually into dorsals and ventrals; a weak lateral fold between axilla and groin; ventral scales smooth, rounded, much smaller than largest dorsal scales, 88 from shoulder to anus; scales in gular fold region twice or three times as large as belly scales; preanal scales about half size of belly scales; scales around body 101.

Dorsal scales of foreleg keeled, weakly mucronate, about two-thirds size of dorsal scales on body, smaller at elbow and on hands; ventral scales of lower foreleg about one-third size of dorsal scales of same member, posteroventral scales keeled, anteroventral scales smooth; lamellar formula for fingers 9-?-?-21-17 (9-15-19-21-15).

Dorsal scales of hind leg keeled, very weakly mucronate, subequal in size to dorsal scales on body; scales on ventral surfaces of thigh smooth, decreasing in size toward femoral pore series; femoral pores 24-25; three scales between femoral pore series; scales on posterior surface of thigh granular; ventral scales on shank smooth, about two-thirds size of dorsal scales of same member; lamellar formula for toes $8-15-20-25-19$ (8-13-20-25-20).

Dorsal caudal scales strongly keeled, mucronate, basal scales about twothirds larger than dorsal scales on body; subcaudal scales keeled near base of tail, smooth farther distally, and keeled near tip of tail; no postfemoral dermal pocket; enlarged postanals present.

Measurements (in mm.): snout to vent, 47.5; snout to occiput, 8.5; snout to ear, 11.5; hind leg, 36.2; tibia, 10.1; 4th toe, 13.8; 5th toe, 6.8.

Color.-General ground color light gray, lighter spots scattered over sides, back and limbs; a series of ten, dark, indistinctly outlined spots on each side of mid-dorsal line; the spots at shoulder very distinct, and extending laterally to join the dark blue ventral coloration; a broken, dark, dorsolateral line extending from shoulder to rump; limbs with indistinct dark bands; posterior surface of thigh very indistinctly mottled; tail with dark blue bars, more distinct distally, extending completely around tail, more brilliant on ventral surface of tail; labial region barred; a dark vertical stripe through eye.

Gular region with broad, oblique blue bars, more distinct and broader near middle of throat; gular fold region white; a very broad area in middle of abdomen, a streak in front of shoulder, preanal region and ventral
surfaces of thighs dark blue; sides of abdomen deep vinaceous lavender; light areas between dark tail bands pale blue in color.

Comparisons.-Characters differing in $m$. merriami and $m$. annulatus may be summarized as follows (first form mentioned is annulatus, the second, in parentheses, is $m$. merriami): frontoparietals usually divided (usually entire); anterior section of frontal rarely entire (rarely divided); prefrontals rarely in contact (very frequently in contact); outer row of labiomentals rarely terminating with the first scale wedged between first postmental and first infralabial (rarely terminating posterior to this point); dorsals from occiput to base of tail average 53.3 (62.8); scales around middle of body average 91.4 (100.4); femoral pores average 23.8 (25.8); scales between femoral pore series average 2.73 (1.7); lamellae on free part of fourth toe average 23.5 (26.9); head scales definitely rugose (smooth); subcaudal surface distinctly banded (not or very indistinctly banded); throat bars extending to labial region, fused medially (confined to middle of throat, less distinct, usually separate); maximum snout-vent measurement 51 mm . ( 58 mm .).

The essential "key" characters distinguishing the two forms are the coloration and character of the labiomental scales. $100 \%$ of the adult specimens examined may be distinguished by the coloration alone; $95.3 \%$ of the total number examined of both subspecies may be distinguished on the basis of the labiomental scales.


[^0]:    ${ }_{1}$ Studies on the lizard genus Sceloporus are being conducted under the auspices of the National Research Council.
    2 I am much indebted to Mrs. Helen T. Gaige, Dr. Edward H. Taylor and Mr. C. D. Bunker for their permission to study these specimens, and for numerous other courtesies which have made possible this description.

    3 Private collection of Dr. Edward H. Taylor.
    4 University of Michigan Museum of Zoology.

[^1]:    5 Dyche Museum at Kansas University.

